UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Bey 1459.

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 01/28/2010

NOTICE OF ALLOWANCE AND FEE(S) DUE

22859 7590 01/28/2010 EXAMINER
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. RAIAN, KAI

1940 DUKE STREET ALEXANDRIA, VA 22314 ART UNIT PAPER NUMBER

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFRMATION NO.

 10/567/930
 02/10/2006
 Yasushi Miyajima
 285/27US6PCT
 5384

TITLE OF INVENTION: IMAGE DISPLAY SYSTEM, IMAGE DISPLAY DEVICE, IMAGE DISPLAY METHOD

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 04/28/2010 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notificat | form should be used f correspondence includir d below or directed oth ions. | or tran ig the l ierwise | smitting the ISSU Patent, advance or in Block 1, by (a | | | | | | tould be completed where correspondence address as rate "FEE ADDRESS" for |
|--|---|-------------------------------------|---|--|--|---|---|---|--|
| CURRENT CORRESPONDE | ENCE ADDRESS (Note: Use Bi | ock 1 for: | any change of address) | Î | Note: A Fee(s) T papers. nave its | certificate of a fransmittal. Thi Each additional own certificate | mailing s certif paper of mai | can only be used for icate cannot be used for such as an assignment ling or transmission. | domestic mailings of the or any other accompanying nt or formal drawing, must |
| 0BLON, SPIV 1940 DUKE STE ALEXANDRIA, | 7590 01/28 AK, MCCLELLA REET , VA 22314 | | MAIER & NI | | | _ | | | |
| | | | | ſ | | | | | (Depositor's name) |
| | | | | [| | | | | (Signature) |
| | | | | L | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | | FIRST NAMED INVENT | OR | | ATTO | RNEY DOCKET NO. | CONFIRMATION NO. |
| 10/567,930 | 02/10/2006 | | | Yasushi Miyajima | | | 2 | 5384 | |
| TITLE OF INVENTION: | | | | | | | | | |
| APPLN, TYPE | SMALL ENTITY | ISS | SUE FEE DUE | PUBLICATION FEE DU | Æ PB | REV. PAID ISSUE | FEE | TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | NO | | \$1510 | \$300 | | \$0 | | \$1810 | 04/28/2010 |
| EXAM | INER | | ART UNIT | CLASS-SUBCLASS | 7 | | | | |
| RAJAN | | | 3769 | 600-300000 | | | | | |
| "Fee Address" indi PTO/SB/47; Rev 03-0; Number is required. 3. ASSIGNEE NAME AT | ondence address (or Cha //122) attached. cation (or "Fee Address 2 or more recent) attach ND RESIDENCE DAT/ ess an assignee is ident n in 37 CFR 3.11. Comp | nge of G 'Indica ed. Use | Correspondence ution form of a Customer E PRINTED ON T | | to 3 r natively ingle fin or agen attorney be prin type) e paten an assi | registered patent rm (having as a at) and the name so or agents. If a ated. | memb s of up to nam | er a 2o to e is 3 | scument has been filed for |
| Please check the appropri | ate assignee category or | catego | ries (will not be pr | inted on the patent): | ☐ Inc | dividual 🚨 Co | rporati | on or other private gro | up entity 🚨 Government |
| Advance Order - # | o small entity discount p | | ed) | o. Payment of Fee(s): (I A check is enclose Payment by credit The Director is her overpayment, to D | d. card. F | orm PTO-2038 | is atta | ched. required fee(s), any def | |
| | SMALL ENTITY state | s. See 3 | 37 CFR 1.27. | | | | | TITY status. Sec 37 CF | |
| NOTE: The Issue Fee and interest as shown by the r | f Publication Fee (if req ecords of the United Sta | iired) v tes Pate | vill not be accepted ent and Trademark | from anyone other the Office. | an the a | applicant; a regis | stered a | attorney or agent; or th | e assignee or other party in |
| Authorized Signature | | | | | | Date | | | |
| Typed or printed name | | | | | | Registration N | | | |
| This collection of informa an application. Confident submitting the completed this form and/or suggestic Box 1450, Alexandria, V Alexandria, Virginia 223 | ation is required by 37 C iality is governed by 35 application form to the ons for reducing this but irginia 22313-1450. DC 13-1450. | FR 1.3 U.S.C. USPT den, sh | 11. The informatic 122 and 37 CFR O. Time will vary tould be sent to the SEND FEES OR O | on is required to obtain 1.14. This collection is depending upon the in e Chief Information Of COMPLETED FORMS | or retai estima idividua ficer, U TO T | in a benefit by the ited to take 12 m al case. Any co J.S. Patent and HIS ADDRESS | ne publ ninutes mment Fraden . SENI | ic which is to file (and to complete, including s on the amount of tin ark Office, U.S. Depa D TO: Commissioner f | by the USPTO to process) g gathering, preparing, and ne you require to complete atment of Commerce, P.O. for Patents, P.O. Box 1450, |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandra, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 01/28/2010

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-----------------|----------------|----------------------|---------------------|------------------|--|
| 10/567,930 | 02/10/2006 | Yasushi Miyajima | 285627US6PCT | 5384 | |
| 22850 | 590 01/28/2010 | EXAMINER | | | |
| OBLON, SPIVA | K, MCCLELLAND | RAJAN, KAI | | | |
| 1940 DUKE STR | | ART UNIT | PAPER NUMBER | | |
| ALEXANDRIA, | VA 22314 | | 3769 | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/567.930 MIYAJIMA ET AL. Notice of Allowability Examiner Art Unit Kai Raian 3769 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to the correspondence received November 24, 2009. The allowed claim(s) is/are 1-4,6-14,16-21 and 23-35. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) 🔯 All b) ☐ Some* c) ☐ None of the: 1. A Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material

/Kai Rajan/ Examiner, Art Unit 3769

Supervisory Patent Examiner, Art Unit 3769

9. ☐ Other . /Henry M. Johnson, III/ Application/Control Number: 10/567,930 Page 2

Art Unit: 3769

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Johnny Ma on January 15, 2010.

Claims 19, 25, 26, 30, 31, and 35 have been amended to read as follows:

19. A method of an image display device for displaying an image, the method comprising: receiving, by the image display device, via a network, bio-information on each of a plurality of persons under measurement;

generating, by a processor in the image display device, an image including objects that interact with each other on the basis of relationships among the bio-information of the plurality of persons under management received in the receiving; and

displaying the image generated in the generating.

25. An image displaying system, comprising:

a plurality of bio-information acquiring devices including

Application/Control Number: 10/567,930 Page 3

Art Unit: 3769

a bio-sensor configured to measure bio-information on each of a plurality of persons

under measurement, and

a first communications interface configured to transmit the bio-information; and

an image display device including

a second communications interface configured to receive the bio-information on the

plurality of persons under measurement, transmitted from each of the plurality of bio-

information acquiring devices,

an image generating processor configured to generate an image including objects that

interact with each other on the basis of relationships among the bio-information on the

plurality of persons under measurement received by the second communications

interface, and

a display unit configured to display the generated image,

wherein the plurality of bio-information acquiring devices and the image display device are

located in different places and connected to each other via a network.

26. An image display device connected, via a network, to a plurality of bio-information

acquiring devices configured to acquire bio-information on each of a plurality of persons

under measurement, the image display device comprising:

Application/Control Number: 10/567,930 Page 4

Art Unit: 3769

a communications interface configured to receive the bio-information on the plurality of persons under measurement transmitted from each of the plurality of bio-information

acquiring devices;

an image generating processor configured to generate an image including objects that interact with each other on the basis of relationships among the bio-information of the plurality of persons under measurement received by the bio-information receiving unit; and

a displaying unit configured to display the generated image.

- 30. The image displaying system according to claim 25, wherein the image generating processor is configured to generate the image based on a comparison between the bio-information on the plurality of persons under management received by the second communications interface.
- 31. The image display device according to claim 26, wherein the image generating processor is configured to generate the image based on a comparison between the bio-information of the plurality of persons under management received by the communications interface.
 - 35. The image displaying system according to claim 25, wherein

Application/Control Number: 10/567,930

Art Unit: 3769

the system is configured to estimate emotions of the plurality of persons under measurement based on the bio-information received by the receiving unit, and the image generating processor is configured to generate the image based on the emotions

the image generating processor is configured to generate the image based on the emotions estimated by the emotion estimating processor.

The following is an examiner's statement of reasons for allowance:

In light of the interview conducted between Examiner and Applicant's Representative on January 5, 2009, the Examiner reviewed the applied prior art, and agrees with Applicant that the claims presented on May 19, 2009 are patentable over the applied prior art.

The Examiner agrees that the applied prior art alone or in combination fails to disclose "generating an image including objects that interact with each other on the basis of relationships among the bio-information on the plurality of persons under measurement received by the receiving means." The prior art applied September 18, 2009, Blattner et al. in view of Hata et al., fail to disclose the aforementioned elements. In Blattner et al. as well as other art, avatars are animated based on user input and reactions to other user input. However, the generated images in the prior art do not include objects interacting with each other. Furthermore, the images generated do not represent a relationship between the bio-information of multiple people, but instead display of bio-information of individual people as separate avatars on a screen, or an image showing the reaction of one avatar to another avatar's data. Prior art showing reactions, such as Blattner et al., result in an image representing an analysis of one person's bio-information, and not a relationship among the bio-information on a plurality of persons.

Application/Control Number: 10/567,930

Art Unit: 3769

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kai Rajan whose telephone number is (571)272-3077. The examiner can normally be reached on Monday - Friday 9:00AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Johnson can be reached on 571-272-4768. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kai Rajan/ Examiner, Art Unit 3769 /Henry M. Johnson, III/ Supervisory Patent Examiner, Art Unit 3769